

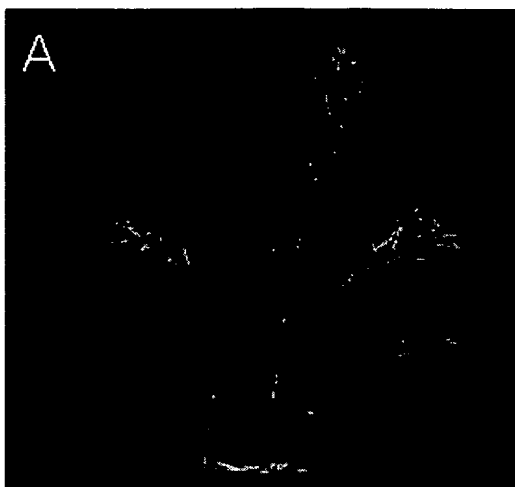


**REPLACEMENT SHEET**  
APPLN. FILING DATE: FEBRUARY 19, 2004  
TITLE: GENE CONTROLLING FLOWERING TIME OF PLANTS  
AND METHOD FOR MANIPULATING  
INVENTOR(S): JONG SEOB LEE ET AL.  
APPLN. NO.: 10/780,703

SHEET 1 OF 14

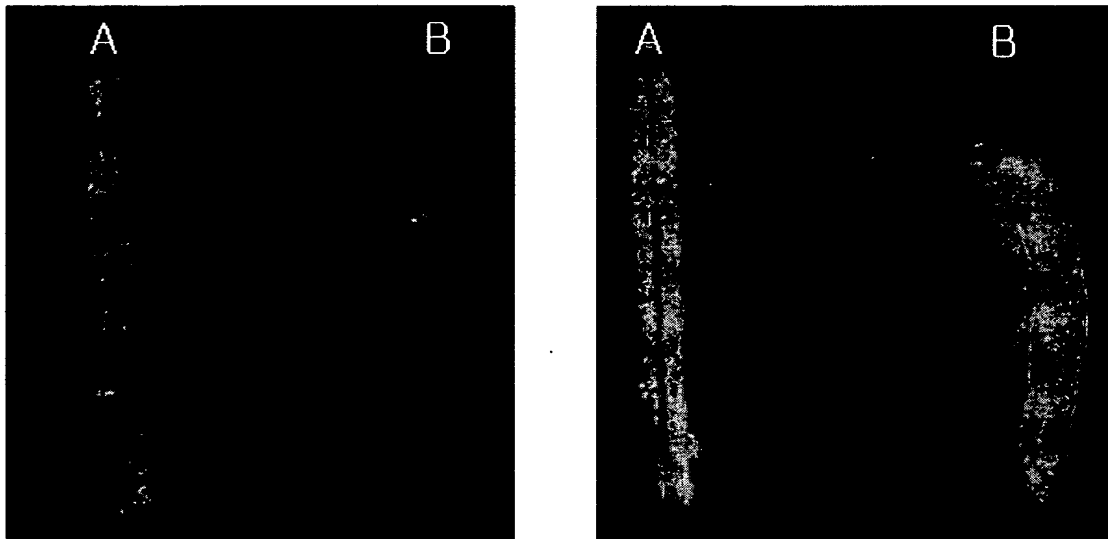
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FIG. 1A



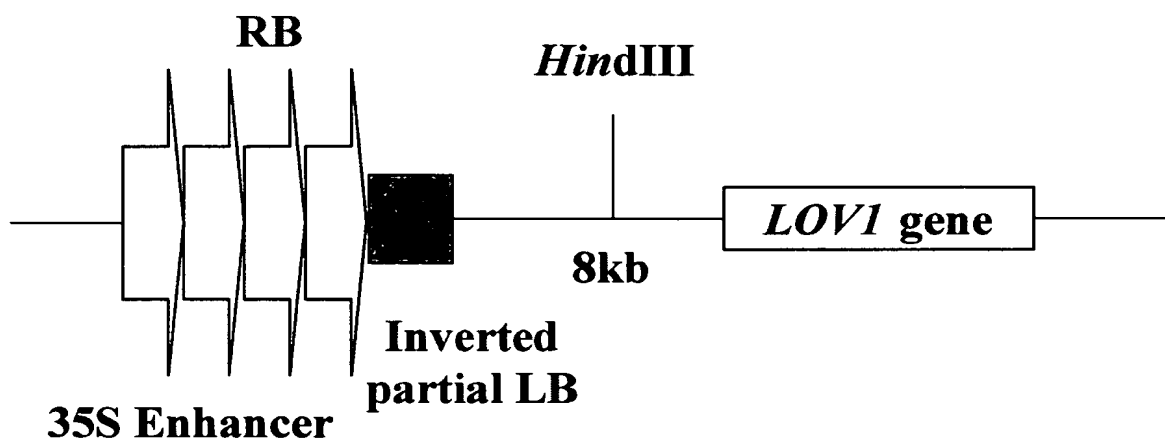
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FIG. 1B



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FIG. 2



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FIG. 3

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LOV1 ( 1) maivsstsipmsnqvnnnekiedndhrggQESHVQN-EDEADDDHDMVMPGFRFHP
NAM ( 1) -----ME- - - - N - YQHFDCCSDSN - LPPGFRFHP
CUC1 ( 1) -----MDVDVFNgWGRPRFEDES LMPGFRFHP
CUC2 ( 1) -----MDIPYYH-YDHGG--DSQY LPPGFRFHP

***** ** ** * * * ***** * *****
LOV1 ( 60) TEEELIEFYLRKVEGKRNFVELITFLDLYRDPWELPAMAAIGKEWYFYVPRDRKYRN
NAM ( 23) TDEELITYYLLKKVLDNSFTGRAIAEVDLNKCE PWELPEKAKMGEKEWYFFSLRDRKYPT
CUC1 ( 29) TDEELITYYLLKKVLDNSFSCAASQVDLNKSE PWELPEKAKMGEKEWYFFTLRDRKYPT
CUC2 ( 26) TDEELITHYLLRKVLDCGCFSSRAIAEVDLNKCE PWQLPGRAKMGEKEWYFFSLRDRKYPT

* * * * * ***** ** * * * ***** * *****
LOV1 ( 120) GDRPNRVTTSGYWKATGADRMIRSETSRPIGLKTLVFYSGKAPKGTRTSWIMNEYRL-
NAM ( 83) GLRTNRATEAGYWKATGKDREIYSSKTSALVGMKKTLVFYRGRAPKGEKSNWVMHEYRLD
CUC1 ( 89) GLRTNRATEAGYWKATGKDREIKSSKTSLLGMKKTLVFYKGRAPKGEKSCWVMHEYRLD
CUC2 ( 86) GLRTNRATEAGYWKATGKDREIFSSKTCALVGMKKTLVFYKGRAPKGEKSNWVMHEYRLE

** * *
LOV1 ( 178) ---PHHETEKYQK
NAM ( 143) GKFAHYISRSSK
CUC1 ( 149) GKFSYHYISSAK
CUC2 ( 146) GKFSYHFISRSSK

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FIG. 4

wild type *lov1-1D*



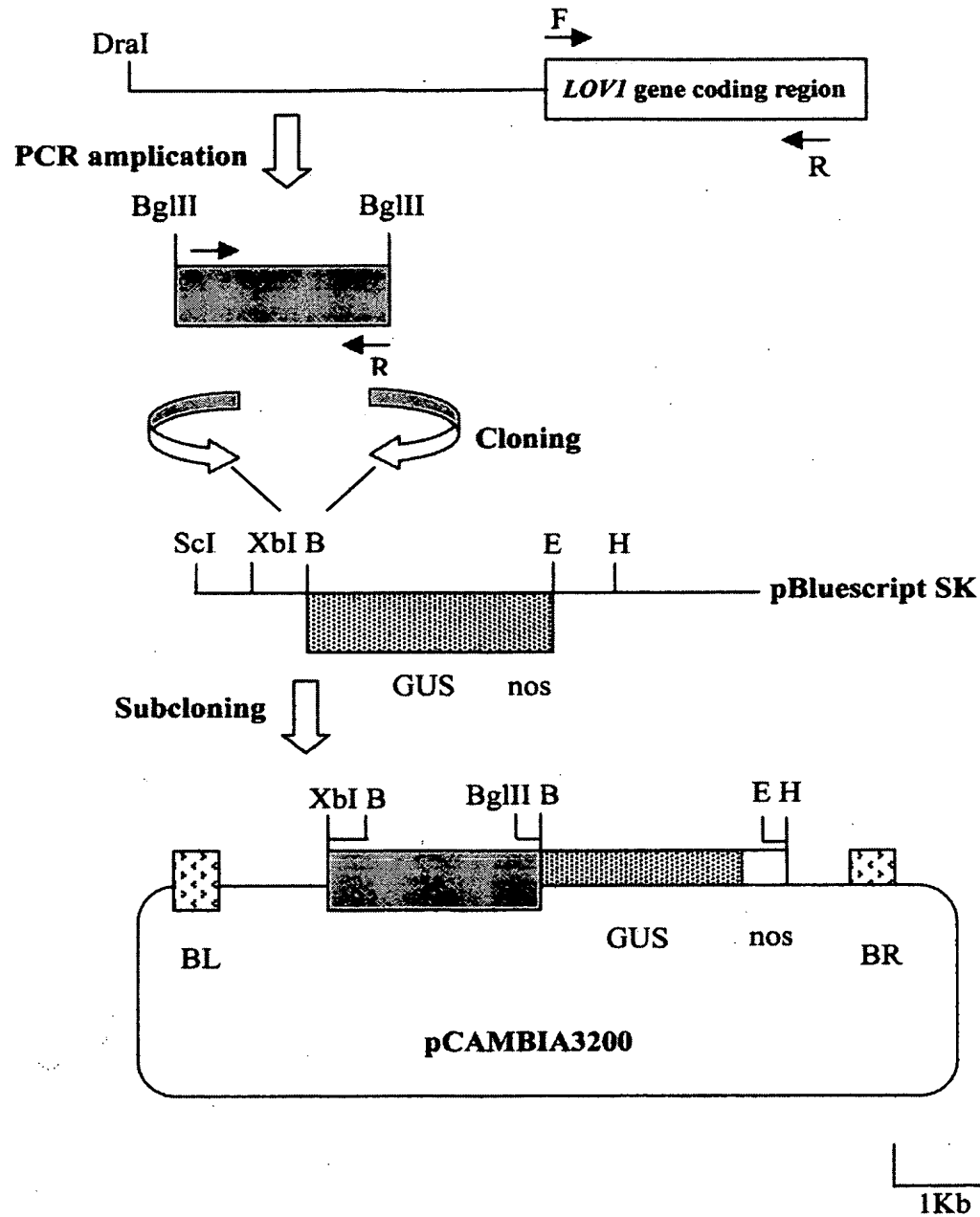
*LOV1*



25S rRNA

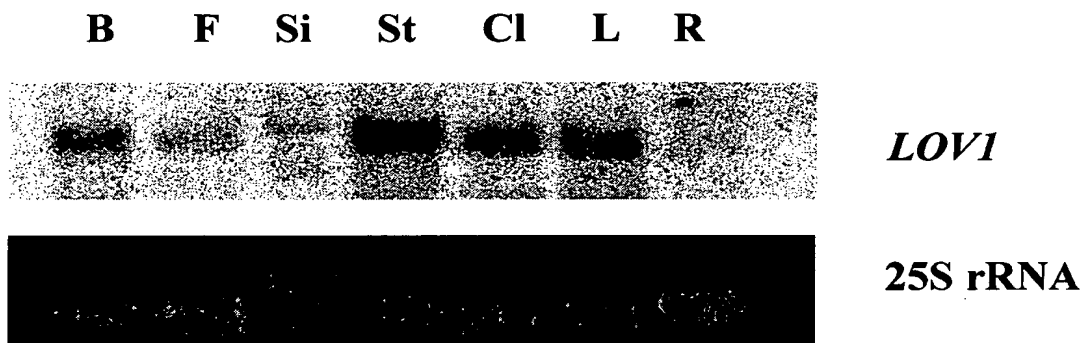
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FIG. 5



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FIG. 6



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FIG. 7A

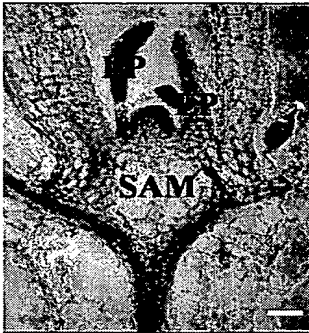
(A)



(B)



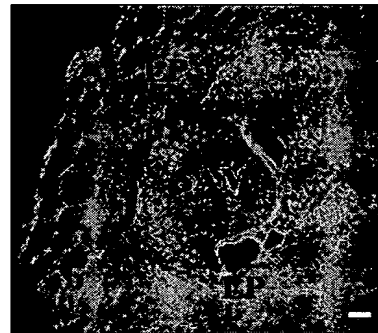
(C)



(D)

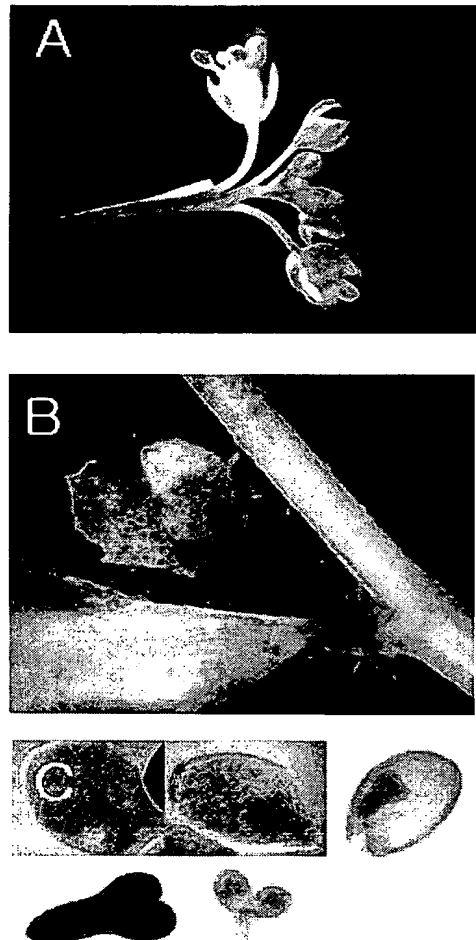


(E)



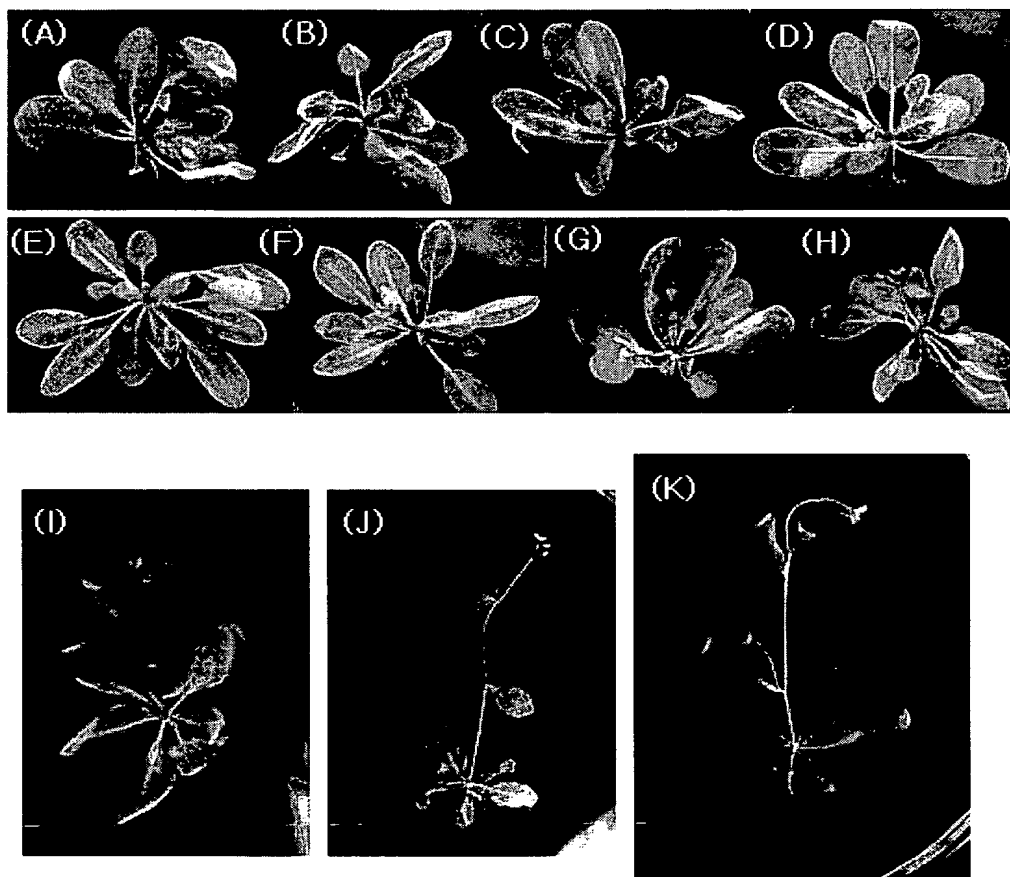
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FIG. 7B



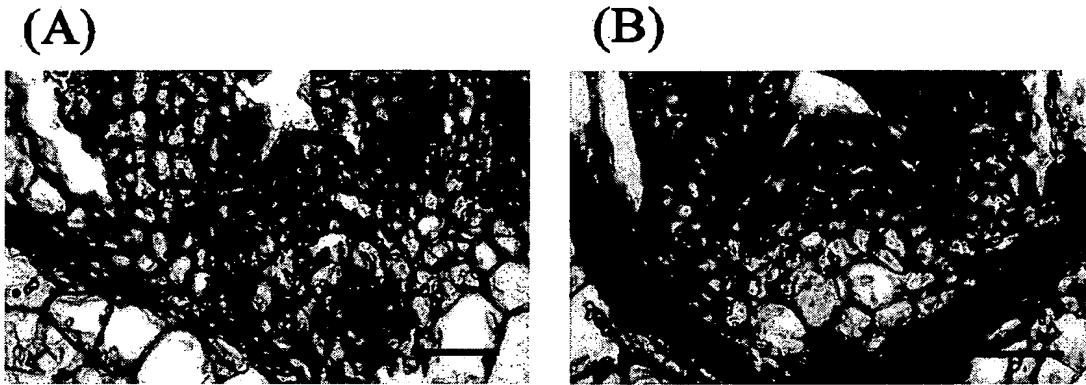
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FIG. 7C



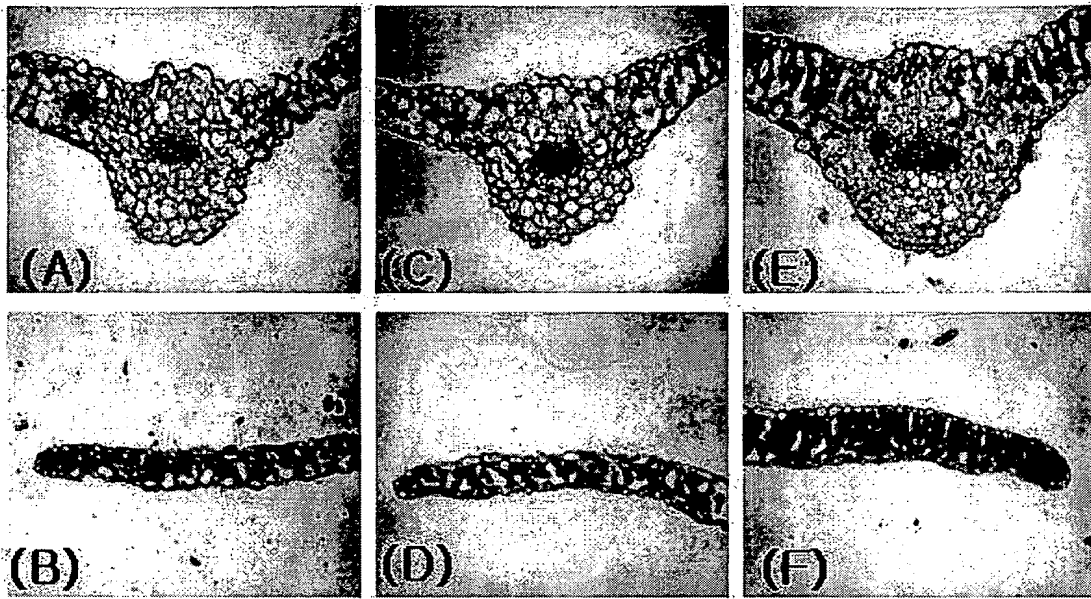
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FIG. 8



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FIG. 9



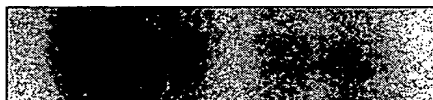
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FIG. 10

wild type *lov1-1D*



*LOV1*



*AGL20*



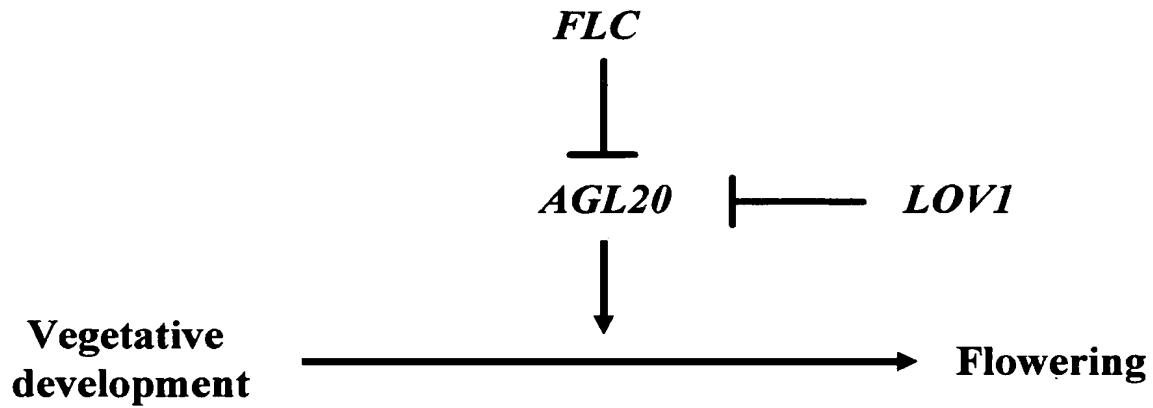
*FLC*



**25S rRNA**

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FIG. 11



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